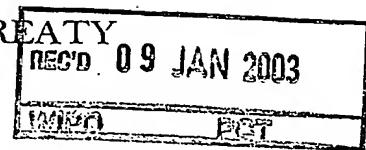


10/009 846

PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 67327/2I001-WO	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/IL00/00388	International filing date (day/month/year) 07 JUNE 2000	Priority date (day/month/year) 08 JUNE 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): A61B 5/08; G01N 1/22, 7/00 and US Cl.: 600/532, 538, 529; 73/23.3, 23.2; 42/84, 83		
Applicant ORIDION MEDICAL 1987 LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 05 DECEMBER 2000	Date of completion of this report 16 DECEMBER 2002
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer NAVIN NATNITHI THADHA
Faxsimile No. (703) 305-3290	Telephone No. (703) 308-2701

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL00/00338

I. Basis of the report1. With regard to the elements of the international application:^{*} the international application as originally filed the description:

pages 1-45

pages NONE

pages NONE

, filed with the demand

 the claims:

pages 46-55

pages NONE , as originally filed

pages NONE

, filed with the demand

pages NONE

, filed with the letter of

 the drawings:

pages 1-18

pages NONE

pages NONE

, filed with the demand

 the sequence listing part of the description:

pages NONE

, as originally filed

pages NONE

, filed with the demand

pages NONE

, filed with the letter of

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

 the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in printed form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. The amendments have resulted in the cancellation of: the description, pages NONE the claims, Nos. NONE the drawings, sheets/fig NONE5. This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).*

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/IL00/00338

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

the entire international application.

claims Nos. 3-66

because:

the said international application, or the said claim Nos. relate to the following subject matter which does not require international preliminary examination (*specify*).

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*).

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for said claims Nos. 3-66.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

the written form has not been furnished or does not comply with the standard.

the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/IL00/00338

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims Claims	<u>NONE</u> <u>1-2</u>	YES NO
Inventive Step (IS)	Claims Claims	<u>NONE</u> <u>1-2</u>	YES NO
Industrial Applicability (IA)	Claims Claims	<u>1-2</u> <u>NONE</u>	YES NO

2. citations and explanations (Rule 70.7)

Claims 1 and 2 lack novelty under PCT Article 33(2) as being anticipated by Huszczuk, U.S. Patent 4,680,956. Huszczuk teaches a method and apparatus for controlled simulation of respiratory gas exchange, for the primary purpose of calibrating and checking the performance of laboratory and clinical test equipment systems. The method and apparatus can reproduce any range of respiratory performance by pumping and mixing atmospheric air with a gas mixture of carbon dioxide and nitrogen. The subject matter of the disclosure provides an accurate, economical and rapid means of on-line calibration and analytical respiratory test systems (see Abstract, col. 2, line 45 to col. 3, line 63).

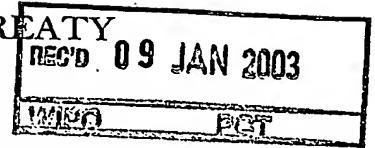
Huszczuk, U.S. Patent 4,782,485, teaches a respiratory analyser calibration apparatus with controlled respiratory gas exchange simulation, for the primary purpose of calibrating and checking the performance of laboratory and clinical test equipment systems. The method and apparatus can reproduce any range of respiratory performance by pumping and mixing atmospheric air with a gas mixture of carbon dioxide and nitrogen.

Jaffe et al, U.S. Patent 4,448,058, teaches an improved gas volume calibration method and apparatus for use in respiratory gas analysers. A control unit monitors the flow and calibration gas through the analyser by monitoring the electrical signals produced by a gas turbine and a breath switch. During calibration a known volume of calibration gas is repeatedly delivered to the analyser from a calibration syringe at each of a number of different flow rates.

————— NEW CITATIONS —————
NONE

PATENT COOPERATION TREATY

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 67327/2I001-WO	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IL00/00388	International filing date (day/month/year) 07 JUNE 2000	Priority date (day/month/year) 08 JUNE 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): A61B 5/08; G01N 1/22, 7/00 and US Cl.: 600/532, 538, 529; 73/23.3, 23.2; 42/84, 83		
Applicant ORIDION MEDICAL 1987 LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
 These annexes consist of a total of 0 sheets.
3. This report contains indications relating to the following items:
 - I Basis of the report
 - II Priority
 - III Non-establishment of report with regard to novelty, inventive step or industrial applicability
 - IV Lack of unity of invention
 - V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI Certain documents cited
 - VII Certain defects in the international application
 - VIII Certain observations on the international application

Date of submission of the demand 05 DECEMBER 2000	Date of completion of this report 16 DECEMBER 2002
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer NAVIN NATNITHI THADHA
Facsimile No. (703) 305-3230	Telephone No. (703) 308-2701

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/IL00/00338

I. Basis of the report1. With regard to the elements of the international application:^{*} the international application as originally filed the description:

pages 1-45

pages NONE

pages NONE

, as originally filed
, filed with the demand the claims:

pages 46-55

pages NONE

pages NONE

pages NONE

, as originally filed
, as amended (together with any statement) under Article 19
, filed with the demand the drawings:

pages 1-18

pages NONE

pages NONE

, as originally filed
, filed with the demand the sequence listing part of the description:

pages NONE

pages NONE

pages NONE

, as originally filed
, filed with the demand

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

 the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

 contained in the international application in printed form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form. furnished subsequently to this Authority in computer readable form. The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished. The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. The amendments have resulted in the cancellation of: the description, pages NONE the claims, Nos. NONE the drawings, sheets/fig NONE5. This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

**Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/IL00/00338**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

the entire international application.

claims Nos. 3-66

because:

the said international application, or the said claim Nos. relate to the following subject matter which does not require international preliminary examination (specify).

the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify).

the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

no international search report has been established for said claims Nos. 3-66.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

the written form has not been furnished or does not comply with the standard.

the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/IL00/00398

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. statement

Novelty (N)	Claims	<u>NONE</u>	YES
	Claims	<u>1-2</u>	NO
Inventive Step (IS)	Claims	<u>NONE</u>	YES
	Claims	<u>1-2</u>	NO
Industrial Applicability (IA)	Claims	<u>1-2</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1 and 2 lack novelty under PCT Article 33(2) as being anticipated by Huszczuk, U.S. Patent 4,680,956. Huszczuk teaches a method and apparatus for controlled simulation of respiratory gas exchange, for the primary purpose of calibrating and checking the performance of laboratory and clinical test equipment systems. The method and apparatus can reproduce any range of respiratory performance by pumping and mixing atmospheric air with a gas mixture of carbon dioxide and nitrogen. The subject matter of the disclosure provides an accurate, economical and rapid means of on-line calibration and analytical respiratory test systems (see Abstract, col. 2, line 45 to col. 3, line 63).

Huszczuk, U.S. Patent 4,732,485, teaches a respiratory analyser calibration apparatus with controlled respiratory gas exchange simulation, for the primary purpose of calibrating and checking the performance of laboratory and clinical test equipment systems. The method and apparatus can reproduce any range of respiratory performance by pumping and mixing atmospheric air with a gas mixture of carbon dioxide and nitrogen.

Jaffe et al, U.S. Patent 4,448,058, teaches an improved gas volume calibration method and apparatus for use in respiratory gas analysers. A control unit monitors the flow and calibration gas through the analyser by monitoring the electrical signals produced by a gas turbine and a breath switch. During calibration a known volume of calibration gas is repeatedly delivered to the analyser from a calibration syringe at each of a number of different flow rates.

————— NEW CITATIONS —————
NONE

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF DEFECTS IN DEMAND
 (PCT Rule 60.1(d))

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
ETATS-UNIS D'AMERIQUE
 in its capacity as International Preliminary Examining Authority

Date of mailing (day/month/year) 14 May 2001 (14.05.01)	
International application No. PCT/IL00/00338	International filing date (day/month/year) 07 June 2000 (07.06.00)
Applicant ORIDION MEDICAL (1987) LTD. et al	

The International Bureau hereby notifies the International Preliminary Examining Authority that it has found that the demand is defective for the reasons indicated below:

1. It does not contain the election of at least one Contracting State bound by Chapter II (Rule 53.2(a)(iv) and 53.7).
2. It does not permit the identification of the international application to which it relates (Rule 60.1(b)).
3. It does not contain the required petition (Rules 53.2(a)(i) and 53.3).
4. It does not contain the required indications concerning the agent as specified in the Annex (Rules 53.2(a)(ii) and 53.5).
5. It does not contain the required indications concerning the international application as specified in the Annex (Rules 53.2(a)(iii) and 53.6).
6. It is not submitted in the required language which is _____ (Rule 55.1).
7. It is not made on the printed form (Rule 53.1(a)).
8. It is presented as a computer print-out the particulars of which do not comply with the Administrative Instructions (Rule 53.1(a)).
9. It does not contain the required indications concerning the applicant as specified in the Annex (Rules 53.2(a)(ii) and 53.4).
10. It does not contain the required signature as specified in the Annex (Rules 53.2(b) and 53.8).

Other observations, if necessary:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorised officer Nestor Santesso
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

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NOTIFICATION C. DEFECTS IN DEMAND

International application No.

PCT/IL00/00338

Continuation of item 4: As to indications concerning the agent (Rule 4.4), the demand:

- a. does not properly indicate the agent's name (specify):

- b. does not indicate the agent's address.

- c. does not properly indicate the agent's address (specify):

Continuation of item 5: As to indications concerning the international application, the demand does not indicate:

- a. the international filing date.
- b. the international application number.
- c. the name of the receiving Office, where the international application number was not known to the applicant at the time the demand was filed.
- d. the title of the invention.

Continuation of item 9: As to indications concerning the applicant (Rules 4.4 and 4.5), the demand:

- a. does not indicate all the applicants for the elected States.
- b. does not properly indicate the applicant's name (specify):

- c. does not indicate the applicant's address.
- d. does not properly indicate the applicant's address (specify):

- e. does not indicate the applicant's nationality.
- f. does not indicate the applicant's residence.

Continuation of item 10: As to requirements concerning signature (Rules 4.15 and 90.4), the demand:

- THE APPOINTMENT OF SSB - AGENT*
- a. is not signed.
 - b. is not signed by all the applicants for the elected States.
 - c. is not accompanied by the statement referred to in the check list in Box No. VI of the demand explaining the lack of the signature of an applicant for the election of the United States of America.
 - d. is signed by what appears to be an agent/common representative but
 - the demand is not accompanied by a power of attorney appointing him.
 - the power of attorney accompanying the demand is not signed by all the applicants for the elected States.

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PATENT COOPERATION TREATY

PCT

NOTIFICATION CONCERNING
AMENDMENTS OF THE CLAIMS(PCT Rule 62 and
Administrative Instructions, Section 417)Date of mailing (day/month/year)
14 May 2001 (14.05.01)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE

in its capacity as International Preliminary Examining Authority

International application No.
PCT/IL00/00338International filing date (day/month/year)
07 June 2000 (07.06.00)

Applicant

ORIDION MEDICAL (1987) LTD. et al

The International Bureau hereby informs the International Preliminary Examining Authority that no amendments under Article 19 have been received by the International Bureau (Administrative Instructions, Section 417).

The International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

Nestor Santesso

Telephone No. (41-22) 338.83.38

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PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT
NOTIFICATION OF ELECTION
(PCT Rule 61.2)

Date of mailing (day/month/year) 14 May 2001 (14.05.01)	To: Commissioner US Department of Commerce United States Patent and Trademark Office, PCT 2011 South Clark Place Room CP2/5C24 Arlington, VA 22202 ETATS-UNIS D'AMERIQUE in its capacity as elected Office
International application No. PCT/IL00/00338	Applicant's or agent's file reference 38623
International filing date (day/month/year) 07 June 2000 (07.06.00)	Priority date (day/month/year) 08 June 1999 (08.06.99)
Applicant COLMAN, Lewis et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

05 December 2000 (05.12.00)

in a notice effecting later election filed with the International Bureau on:

2. The election was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Nestor Santesso Telephone No.: (41-22) 338.83.38
---	---

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(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 December 2000 (14.12.2000)

PCT

(10) International Publication Number
WO 00/74553 A3

(51) International Patent Classification⁷: **A61B 5/08, G01N 1/22, 7/00** Jerusalem (IL). BEN-OREN, Ilan [IL/IL]; 14/80 Kadish Luz Street, 96920 Jerusalem (IL).

(21) International Application Number: **PCT/IL00/00338**

(74) Agents: COLB, Sanford, T. et al.; Sanford T. Colb & Co., P.O. Box 2273, 76122 Rehovot (IL).

(22) International Filing Date: **7 June 2000 (07.06.2000)**

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
130370 8 June 1999 (08.06.1999) IL
09/542,768 4 April 2000 (04.04.2000) US

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): ORIDION MEDICAL (1987) LTD. [IL/IL]; Har Hotzvim Industrial Area, P.O. Box 45025, 91450 Jerusalem (IL).

(72) Inventors; and

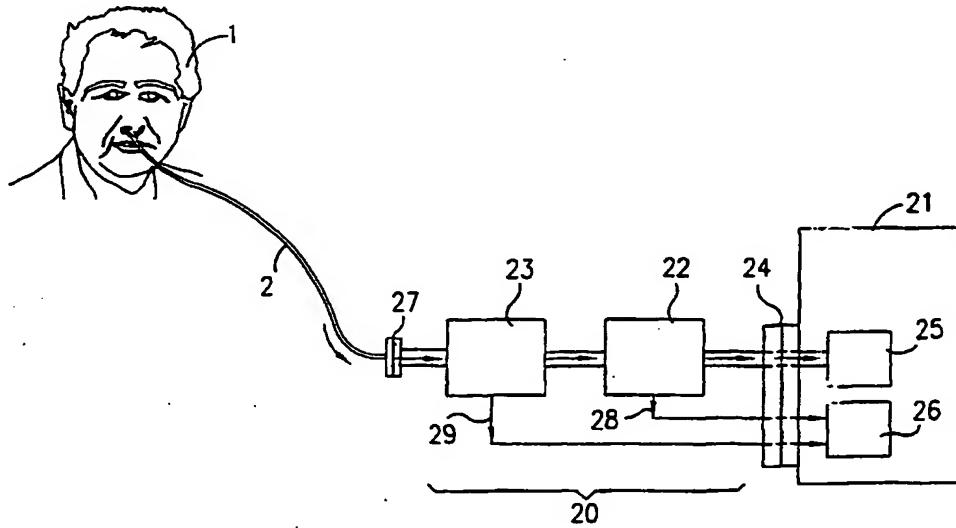
(75) Inventors/Applicants (*for US only*): COLMAN, Lewis [IL/IL]; 7/3 Petel Street, 97430 Jerusalem (IL). LEVITSKY, Gershon [IL/IL]; 7/12 Meir Yosha Street, 97861

Published:

— with international search report

[Continued on next page]

(54) Title: GAS ANALYZER CALIBRATION CHECKING DEVICE



WO 00/74553 A3

(57) Abstract: A calibration checking device (22), and methods of mandating its use at regular time intervals, to ensure maintenance of the accuracy of gas analyzers (25), especially for use with breath tests. Each calibration checking device (22) is designed to be used for a predetermined number of tests. After first connection of a new calibration checking device (22), a volume of known calibration checking gas is released into the instrument, and a calibration checking measurement is initiated. A signal (28) is sent to a counting mechanism (26) which both enables the use of the instrument, and commences a count of the number of tests performed by the breath tester (21). When the number of tests is exceeded, the instrument is disabled. The device (22) can include a moisture filter (23) having an interface (29) with the instrument, which prevents its operation if the filter (23) is used beyond the recommended number of times, or if excess moisture renders it saturated.

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(88) Date of publication of the international search report:
16 August 2001

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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INTERNATIONAL SEARCH REPORT

International application No: PCT/IL00/00338

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61B 5/08; G01N 1/22, 7/00
 US CL : 600/532, 538, 529; 73/23.3, 23.2; 422/84, 83

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 600/529, 531-533, 537-543; 73/23.3, 23.2; 422/84, 83; 436/900

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, E	US 6,106,479 A (WUNDERLICH et al) 22 August 2000, Abstract, Fig. 1, col. 1, line 53 to col. 2, line 61.	1 and 2
X	US 4,732,435 A (HUSZCZUK) 09 February 1988, Abstract, Fig. 1, col. 2, line 47 to col. 4, line 66.	1 and 2
Y	US 4,680,956 A (HUSZCZUK) 21 July 1987, Abstract, Fig. 1.	1 and 2
Y	US 4,448,058 A (JAFFE et al) 15 May 1984, Abstract.	1 and 2
A, E	US 6,096,558 A (STOCK) 01 August 2000, Abstract.	1 and 2

Further documents are listed in the continuation of Box C. See patent family annex.

-	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"B"	earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search 19 OCTOBER 2000	Date of mailing of the international search report 21 MAR 2001
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Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer NAVIN NATNITHADHA Telephone No. (703) 305-2445
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